Abstract ID : 629

Title : Morphometry, gross morphology and available histopathology in Northwest Atlantic right whale (Eubalaena glacialis) mortalities (1970 to 2002).

Category : Conservation

Student :

Preferred Format : Either Oral or Poster Presentation

Abstract : Fifty-five dead right whales have been reported from between Florida, USA and the Canadian Maritimes from 1970 through 2002. Thirty were examined: 18 adults and juveniles and 12 calves. Morphometric data allow prediction of body weight if the age, or one or more measurements are known. Calves grew approximately linearly in their first year. Total length and fluke width increased asymptotically to a plateau with age, weight increased linearly with age, weight and snout to blowhole distance increased exponentially with total length, whereas total length was linearly related to fluke width and flipper length. Among the adults and juveniles in this study, human interaction appeared to be a major cause of mortality, where in 14/18 necropsies, trauma was a significant finding. In 10/15 of these, the cause of the trauma was presumed to be vessel collision. Entanglement in fishing gear accounted for the remaining four cases. Trauma was also present in 4/12 calves. In the majority of calf mortalities (8/12) the cause of death was not determined. Sharp ship trauma included propeller lacerations inducing multiple, deep lacerations that often incised vital organs including the brain, spinal cord, major airways, vessels and musculature. Blunt ship trauma resulted in major internal bruising and fractures often without external damage. Fatal gear entanglements were at least in two cases extremely protracted, taking at least 100 and 163 days respectively to be finally lethal. The sum of these findings show two major needs. 1) Extinction avoidance management strategies focused on reducing trauma to right whales from ship collisions and fishing gear entanglement are highly appropriate; 2) Mitigation measures continue to be introduced into shipping and fishing industry practices, therefore a strong effort to maximize the diagnostic quality of post mortem examination is necessary.